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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/089,856	08/05/2002	Mitsuaki Miyakoshi	113184-049	1395
29175	7590	05/26/2005	EXAMINER	
BELL, BOYD & LLOYD, LLC P. O. BOX 1135 CHICAGO, IL 60690-1135			MARTIN, ANGELA J	
			ART UNIT	PAPER NUMBER
			1745	
DATE MAILED: 05/26/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/089,856

Applicant(s)

MIYAKOSHI ET AL.

Examiner

Angela J. Martin

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 February 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2 and 6-27 is/are rejected.
- 7) ☒ Claim(s) 3-5 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This Office Action is responsive to the Amendment filed on February 17, 2005. This rejection is made non-final for the following reasons of record.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by Lakeman et al., WO 99/60642.

Rejection of claims 1 and 2 drawn to an electrical energy generating device.

Lakeman et al., teach an electrical energy generating device comprising a cell (abstract) having at least a hydrogen electrode (p. 7, lines 6-13), a proton conductor film (p. 7, lines 13-15), an oxygen electrode (p.7, lines 18-28), and a sheet cover having an air permeability and a waterproofness (p. 3, lines 3-13), wherein the sheet shrouds the cell (p. 3, lines 3-5 and 11-13). It teaches the sheet cover is formed of polyester (p. 3, lines 5-7).

Thus, the claims are anticipated.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 6-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lakeman et al., WO 99/60642, in view of Aldhart et al., U.S. Pat. No. 4,826,741, and in further view of Ishida, U.S. Pat. No. 5,312,700.

Rejection of claims 6-26 drawn to an electrical energy generating device.

Lakeman et al., teach an electrical energy generating device as described above.

Lakeman et al., do not teach the following limitations.

Aldhart et al., teach an electrical energy generating device (abstract) having a hydrogen electrode plate, an oxygen electrode plate, a hydrogen gas flow path plate having a plurality of apertures, so that a first hydrogen plate, a first proton conductor film and a first oxygen plate are arrayed in an order in one side of the hydrogen gas flow plate, and a second hydrogen plate, a second proton conductor film and a second oxygen plate are arrayed in an order on another side of the hydrogen gas flow plate (col. 3, lines 45-67; Fig. 1). It also teaches the thickness of the hydrogen and oxygen gas flow plates is from 0.2-5 mm (col. 4, lines 40-49); and the material for the hydrogen and oxygen gas flow plates is ceramic or carbon (col. 4, lines 40-46).

Aldhart et al., teach a plurality of apertures in the hydrogen and oxygen gas flow plates (col. 4, lines 20-29). However, it does not teach a lattice.

Ishida teaches an electrical energy generating device (abstract) wherein the apertures have a lattice pattern (Fig. 1-3). It teaches the plates are arrayed so that each

of the apertures passes through the apertures formed in the second set of plates and the points of intersection of the lattice coincide (Fig. 6). It teaches the apertures are the same shape, rectangular (Fig. 1).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to insert the teachings of Aldhart et al., and Ishida into the teachings of Lakeman et al., because it is disclosed that the lattice structure in the fuel cell assembly increases the mechanical strength of the plates, and therefore increases the mechanical strength of the fuel cell.

5. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lakeman et al., WO 99/60642, in view of Aldhart et al., U.S. Pat. No. 4,826,741, and in further view of Challberg, U.S. Pat. No. 6,813,327 B1.

Rejection of claim 27 drawn to an electrical energy generating device.

Lakeman et al., teach an electrical energy generating device as described above.

Aldhart et al., teach an electrical energy generating device as described above.

Challberg, teach plural apertures formed in a substantially circular shape (Fig. 3).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to insert the teachings of Aldhart et al., and Challberg into the teachings of Lakeman et al., because depending on the design of the electrical energy generating device, one of ordinary skill would employ apertures of a conducive shape for the particular device.

Allowable Subject Matter

6. Claims 3-5 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. The following is a statement of reasons for the indication of allowable subject matter: Applicant claims an electrical energy generating device as described in claim 1, further comprising a water-absorbent sheet having an air permeability and a water-absorbing property provided inside the sheet cover, so that the water absorbent sheet shrouds the cell.

8. The prior art of record does not disclose further comprising a water-absorbent sheet having an air permeability and a water-absorbing property provided inside the sheet cover, so that the water absorbent sheet shrouds the cell.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Angela J. Martin whose telephone number is 571-272-1288. The examiner can normally be reached on Monday-Friday from 9:00 am to 5:00 pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



AJM



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PRIMARY EXAMINER